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VAGINAL SECTION FOR EXTRA-UTERINE PREGNANCY.*

BY FERNAND HENROTIN, M. D., CHICAGO.

Vaginal section for pelvic diseases has never been presented by reasonable men as a new discovery that was destined to supplant all others in the surgical treatment of affections heretofore cured by the suprapubic incision, but only as a method by another route of attaining the same object, and having in selected cases very great advantages.

This assertion would seem unnecessary were it not for the very vigorous, and from some quarters almost venomous, energy displayed in endeavoring to put this construction upon the claims of its advocates.

Whether for fibroids or pyosalpinx or extra-uterine pregnancy, or any other pelvic disorder, the most enthusiastic friend of vaginal section never claims that it is the only way of cure, or even always the best way.

They one and all agree that some varieties of the diseases in question can be reached better suprapubically, and it can be said of many of them that they have the best of the argument, for they have been accustomed to abdominal work, and have had experience in both directions, while the most bitter denunciators of vaginal work have, with almost no exception, had no personal experience with the method they condemn. To claim that because they have reasonably often removed the uterus for cancer by the vagina, they can judge of results in other affections can not be allowed, for the conditions presented in really operable cases of that disease are totally different, and the results obtained—for it is results which vaginal operators are particularly proud of—are almost diametri-

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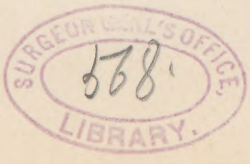

cally opposite. The friend of vaginal section for selected cases of fibroids, pyosalpinx, and pelvic abscesses, and other benign affections, becomes more and more wedded to that method, because, with very few exceptions, he cures his patient for good and ever, while the other, who never goes the vaginal way except to take out a carcinoma, finds his surgical enthusiasm constantly oozing away, as one by one his patients silently depart. Vaginal section for carcinoma, as I predicted several years ago, will soon be a practice of the past with skillful surgeons, while modern vaginal section has come to stay; but, remember, for the cases appropriate for the method, and those only. This warning is voiced because it seems to your essayer that, like all new methods which are accepted, the desire to become proficient leads many of its devotees to forget its limitations, and indulge in pelvic gymnastic exhibitions which show more what can be done than what ought to be done.

This applies equally to the man who takes out by bits the ten-pound abdominal fibroid or the small single enucleable pus tube adherent to the anterior abdominal wall, or to the operator who says blindly that extra-uterine pregnancy is to be operated by the vagina. The great variety of ways in which the latter affection presents itself makes it evident that the highest degree of discrimination is necessary in determining the method of operating, provided operation is called for at all. The limit of this paper, which is only one part of a composite discussion of the subject of extra-uterine pregnancy, makes it imperative that only the most salient operative indications be mentioned, sufficient, however, to show the scrutiny and study which each phase of the disease demands.

Let me first consider the diagnosed ectopic cases preceding rupture. It is not in the province of this part of the symposium to dwell upon the difficulty of the diagnosis of this variety. Suffice it to say that all unruptured extra-uterine pregnancies are small, and present themselves to the operator as a mass connected with and in close proximity to the uterus, probably never larger than an orange of moderate size. This refers to the tubal variety, as being the most common, but applies to all varieties; for it is questionable whether any larger development is ever attained in any of the varieties without the element of at least partial rupture either of the component parts of the ovum or the surrounding structures. Shall such as this be operated vaginally or abdominally? Everything depends upon the accompanying conditions present. What is more perfect and

nicer work than a small, low incision above, a ligature next to the uterus, another one at the infundibulo-pelvic ligament, and a quick, clean exsection of the small, free, aseptic, non-adherent mass between, and how often such women recover and go on having children as if nothing had happened? If this woman be a primipara, with narrow, long vagina, and the conception be placed high over the top of the broad ligament, the abdominal operation is imperatively demanded and no other is proper. But let this mass be low down behind the uterus; let its peritoneal covering become adherent to the Douglas' sac; let her be a multipara, with plenty of working room; suppose there is some evidence of possible septic peritonitis present, how much easier, simpler, and safer to make a vaginal section, pull down the mass in the vagina, and make your exsection there! In nine cases out of ten the woman will hardly know she has been hurt at all.

Pass now to the ruptured cases, from the woman with an abdomen full of blood and an ovum big as a hazelnut to the one with a large, living, nine months' baby struggling beneath a load of intestines, bound down with a thousand adhesions and a great pulsating, vibrating placenta. Let us analyze the clinical features of some of the most common phases of these. First let us dwell on early ruptures. There is reason to believe that early ruptures before eight weeks occur more frequently than is supposed, or is mentioned by the leading authorities. The rupture takes place within the fold of the broad ligament, the ovum dies, the loss of blood is restrained by the lack of space in the cavity, and the patient gradually recovers, Nature in her kindness removing all products of conception by absorption. The same may hold good in probably a rarer number when the rupture takes place in the peritoneal cavity. Or a tubal abortion without rupture can occur without very dangerous symptoms, the ovum dropping in the general cavity, and being consumed after digestion by the peritonæum.

A review of the literature of the subject, however, will demonstrate the fact that some of the most acute and most viciously dangerous cases result from very early ruptures into the general cavity with excessive hæmorrhage. Here, for example, is a blighted ovum five weeks of age, in which at least three quarts of blood were found in the abdomen at the operation. (Specimen is here shown.) If a woman is found pulseless, with a history corresponding to such a case, and with internal hæmorrhage, shall she be operated vaginally

or abdominally? The indication is simply to stop the hæmorrhage in the most efficient manner within the shortest possible space of time. This can be done more certainly, probably more perfectly, and in a shorter length of time by the abdominal route than by vaginal section. To open the posterior vaginal fornix and drain, packing the lower part of the pelvis with gauze, as has been done and even recommended, is not surgical, because the bleeding point may not be controlled. To secure the point of rupture is not always easy from that direction, and to ligate or clamp on both sides of the wound is still more difficult. The manipulations necessary to do this often lead to fresh traumatisms, and the hæmorrhage from the surroundings of an ectopic sac is always excessive and the tissues most friable.

The most serious mishaps of the vaginal operators have occurred when attacking the pregnant or puerperal uterus. Repeatedly, in endeavoring to perform a conservative operation on the adnexæ or a vaginal fixation for displacements, surgeons have been obliged to finish by a complete hysterectomy because of the uncontrollable hæmorrhage caused by the friable nature of the tissues of the recently pregnant organ. Besides this, the least established infection may spread with frightful rapidity in an abdomen filled with semifluid blood. Another item of importance mentioned by Martin, of Berlin, is the fact that the hæmorrhage in those cases comes from the ovarian artery, and the bleeding point of the distal end can not be reached from below.

In these acute cases, then, clean the abdomen thoroughly, put the patient in the Trendelenburg position, open quickly, dip the hand at once through the blood to the point of the rupture, place a light clamp on each side of the traumatism, mop away sufficient blood to enable you to place the ligatures; place these by the touch, if necessary, sweep the open hand a few times around the abdomen to remove the large clots, and possibly the product of conception, exsect the tube, though this is not essential, make sure that you have controlled the hæmorrhage, and immediately close. The bleeding points can often be controlled in four or five minutes, and the whole operation completed in fifteen minutes. There is reason to believe that a fair proportion of the cases of this kind that have proved fatal after operation have been hastened to their death by attempting to clean out the cavity, and the removal of the blood, which acts as an intraperitoneal infusion, or rather transfusion, keeps the patient from dying until her vital forces rally to the rescue.

In the case from which this specimen was taken, for example, the woman, who had been pulseless and cold as death for three full hours, was closed up with two quarts and a half of blood in the abdomen, and yet made the most uneventful recovery.

When the time of hæmorrhage in the free cavity is more remote, and the patient has rallied from the initial collapse—cases that have been usually styled abdominal hæmatoceles—it is probably better not to operate at all until it has been shown that Nature is unable to remove the disease by absorption. If they become septic, however, the operation of election is frequently vaginal section. To make myself plainly understood: if an abdominal hæmatocele filling Douglas' sac gives rise to symptoms of sepsis, a free opening is at once to be made behind the uterus into the abdominal cavity, the pelvis well cleaned of all *debris*, and thorough drainage established, irrigation with any force never being used.

When an extra-uterine pregnancy of from eight to twelve weeks' duration ruptures into the broad ligament, are we to do a vaginal section? Many of these cases do well without operation at all, teaching to the contrary notwithstanding, but the woman who is not certain of the careful watching of a skilled man had better take her chances with an operation. Secondary rupture of such cases into the free cavity never occurs, in my opinion, without repeated warnings in the way of sharp pains, excessive prostration, and faint spells. If it is decided to operate, the presence of septic symptoms is a factor of the utmost importance in deciding the character of the operation. Generally speaking, a patient without symptoms, except those derived from the traumatism of the rupture, had better be operated by the abdominal method. There are exceptions to the rule. The advice of August Martin over a year ago, with an experience of over fifty vaginal operations in this class of troubles, is a most valuable one. He says if the mass is at all fixed to the sides of the pelvis, it unfolds the infundibulo-pelvic ligament, and the operation by vaginal section at once becomes a most dangerous one, because the bleeding from the retracted ovarian artery, if it occurs, can not be controlled; and I will add, because the bleeding from the tissues that are torn around the gestation sac is frequently so severe and persistent that life can not help being endangered. Who ever saw within the abdomen the fullness and fragibility of the large bunches of veins grouped around a pregnant uterus that does not recognize the necessity of a large incision and good daylight to deal with a hæmorrhage

in such a locality? The French surgeons have been rather strong supporters of vaginal section under all circumstances, but one can not help feeling that their statistics show entirely too large a number of accompanying hysterectomies to represent the highest standard of modern surgical art. Can anything be more satisfactory than the suprapubic method of exsection of the ruptured, usually diseased tube, followed by a careful cleansing out of the pelvis, with careful ligation of bleeding points, a careful sewing of the peritonæum over torn surfaces, with, if need be, a small capillary gauze drain into the vagina?

I have a patient operated nine months and a half ago in this manner who is eight months pregnant, having only menstruated once just before leaving the hospital. If an extra-uterine mass of this variety is loose and free in the pelvis, not reaching too far toward the iliac fossa, well down toward the floor, with a roomy vagina, it may with safety be operated by vaginal section. But such cases are really exceptional, and the method as a routine one is not to be recommended.

With the advent of sepsis, however, things are changed. We are now dealing simply with a conglomerate infectious lump which is to be removed by the channel which offers the least risk to the patient. The dangerous element in the case—namely, hæmorrhage—is to a very great extent eliminated. The lumen of vessels are occluded for a distance beyond the sac walls. In operating abdominally, we often encounter adhesions of the most distressing character quite removed from the focus of the disease. After working our way through these, we are obliged to transport infectious material through healthy parts, often contaminating as we go. The pus and septic *debris* can not usually be cleaned out perfectly, and we are perforce obliged to drain. Our ligatures become affected, and the whole nidus left after the removal of the sac frequently becomes the seat of long-continued suppuration, and it is in this form of trouble that we are so frequently worried by vicious fistulæ that never heal.

Unless a contra-indication exists, these are the proper patients to operate *per vaginam*, and if the septic process has been very virulent and long continued, and if after careful investigation of the condition of the uterus and the appendages of the opposite side our judgment indicates it, the proper operative procedure may be a vaginal hysterectomy with double castration.

There remains to be considered the ruptured cases in which the fœtus was not killed by the first injury, but continues to grow in its abnormal location whether in the broad ligament or in the free abdominal cavity.

I present for your inspection, as particularly showing the propriety of vaginal section in some of these cases, a fresh specimen of the uterus and remains of gestation sac of an extra-uterine, so-called abdominal pregnancy which I operated last Saturday.

I am particularly fortunate in being able to re-enforce my argument with such a specimen, for you know that they are rare. I am, however, very sad that the presentation of this specimen indicates the unfortunate issue of the case. In a few words—for I am trespassing upon your time—the history is this: A six months' abdominal pregnancy, with a history of a primary rupture well described. Continued growth of the embryo in Douglas' pouch. Gradual emaciation and prostration of the patient, who was a primipara. Recurring serious attacks of fainting spells, profound anæmia, excessive prostration, evidence of incipient sepsis, constant dyspnœa, making it apparent to her physician that the end was near, and he referred her to me for examination a few days before the operation. Examination revealed two large tumors, one above, reaching slightly above the umbilicus, of a fluctuating character, the other immovably packed into the pelvis, and insinuating itself between the rectum and the uterus to within one inch and a half of the fourchette. The cervix could just be reached anteriorly well above the pubis. Auscultation over the upper mass demonstrated the extremely loud bruit of a placental souffle. Extreme tenderness and tension of the lower abdomen made a satisfactory examination difficult. At first I was inclined to believe that the pelvic mass might be a misshapen, impacted fibroid, with an intra-uterine pregnancy above. The possibility of dealing with an impacted, adherent, retroverted gravid organ was also considered. One of our members, my friend Dr. Harris, first mapped out the body of the uterus just above the pubis and to the left. Another examination made the diagnosis plain. Knowledge of the fact that the patient's condition was such that a long drain with septic absorption would certainly kill her, and the hope that I might find the gestation sac so situated and reasonably isolated that it would be possible to extract the whole, including uterus, if need be, and save the patient a dragging convalescence, which I know she could not endure, made me begin by a small ab-

dominal incision. Possibly I may have had a passing thought of the ever-ready abdominal man, who never operates through the vagina, and who would certainly claim that she might easier have been delivered by that route. At any rate, I was quickly undeceived. No man, I firmly believed, could have delivered that patient through the abdomen, and taken her from the table alive. This is rather a strong assertion, but it is my firm and honest belief. Adhesions to everything and from everywhere. Pools of old blood and new blood wherever the finger was thrust. A small portion of the sac being uncovered by careful separation of adherent bowel, a trocar was first thrust in, and, nothing flowing, the finger followed, which, when taken away, was followed by placental tissue. Only five or six ounces of blood were lost, because much care was taken in separation of adhesion and in packing with gauze, and because, judging from the appearance of the patient, she was too near death to bleed. She was quickly brought down to the edge of the table, a straight, long incision was made in the middle line of the posterior vaginal wall, the sac was easily reached, incised, and the child extracted by pushing two fingers past the protruding arm and grasping a foot. Only a few minutes of easy plain work was necessary, although the patient died an hour and a half later, evidently being too far gone from the very start. The sad ending of this case does not lessen the importance of the lesson. If this woman had not been in the condition that precluded and prevented hæmorrhage, the abdominal incision would have given much trouble, and have been a serious hindrance to her recovery, while vaginal section would have made the operation an ideal one. The presentation of this particular case is not intended to be made the basis of an opinion that vaginal section is to be recommended as a proper procedure in the management of this class of cases generally, or even in the majority of cases. On the contrary, the literature of the subject indicates that abdominal section in later years has given better results. It is simply the presentation of a case in which, if operation was done, vaginal section was decidedly preferable, because the case presented itself in such a manner in the pelvis, and so far removed from the placenta, that it was child's play to so deliver, and but little disturbance of the placenta would result. But even in this very case, if the pregnancy had advanced to or near time, the delivery would have been so much more difficult that the dangers would have been increased exceedingly. Again, if the pregnancy had been more advanced, there

would only be a short time to wait for the death of the fœtus, and subsequent stoppage of the placental circulation. In this particular case, after being in both above and below, I am prepared to state that it is my opinion that at whatever time the operation was done, the child living or dead, the way of election would have been by the vagina. As in all other varieties of extra-uterine pregnancy, the same rule holds that when sepsis is far advanced, in which case, of course, the child is dead, the vaginal method should be the choice unless there are distinct contra-indications; and in judging of these there are two elements to be carefully taken into consideration, and that is the size of the child, which, when large, can only be delivered with difficulty, if at all, through a vaginal incision, and the condition of the placenta, whether still attached or detached, and with or without vessel connection.

The recital of a case has made this paper much longer than proper in a symposium, but it is a subject of interest, and I present my excuses for taking your time. In December, 1890, Dr. Fenger, here present to-night, read a much more classical paper upon this very subject before this Society, which, however, only treated of cases at or near term. Moreover, let me draw your attention to the fact that since 1890 vaginal section has developed to a much higher plane as a distinct method of operating, and many men have become much more skillful in that variety of work, while the technique has likewise improved. This paper is not exhaustive, but is only intended to sustain the position of its writer, and outline the particular variety of cases that are amenable to vaginal section. If you carefully consider it, you will recognize that, generally speaking, the position is taken that vaginal section has a distinct field in extra-uterine pregnancy; but then, after all, that field only covers groups of cases that are exceptional, and that laparotomy is considered the proper road by which to attack the large majority of cases.